MEMORANDUM

TO: Vermont Adult Performance Indicator Project Advisory Group

FROM: John Pandiani

Lisa Gauvin

DATE: August 13, 1997

RE: Total Inpatient Behavioral Health Care Utilization by Vermont Adults, 1990 - 1995

This week we continue examination of mental health practice patterns by focusing on trends in the utilization of inpatient behavioral health care during 1990 – 1995.

We look forward to your comments on the quality of the data, the appropriateness of the analysis, and the effectiveness of the presentation of these data, as well as your interpretation of the results.

Total Inpatient Behavioral Health Care Utilization by Vermont Adults, 1990 - 1995

Question: Has total inpatient behavioral health care by adult residents of Vermont changed during 1990 through 1995?

Data: Inpatient behavioral health care (mental health or substance abuse) utilization was examined using extracts from the Health Department Hospital Discharge Data Set, the Brattleboro Retreat Client Database, and the Vermont State Hospital's Admission and Discharge Database. Together these data sets include records for all episodes of psychiatric and substance abuse hospitalizations for Vermont residents occurring at VSH, Brattleboro Retreat and in general hospitals in Vermont and New Hampshire. The State of Vermont does not have unique client identifiers across service providers. In order to derive unduplicated counts of the number of people served, Probabilistic Population Estimation has been used to provide both people estimates and 95% confidence intervals.

Analysis: The analysis reported here looks at utilization in four separate ways. Average daily census (ADC) is the average number of people hospitalized each day for each of the six years. ADC is calculated by dividing the total number of patient days used in each year by the number of days in the year. Episodes is the actual number of behavioral health care hospitalizations provided to Vermont residents during 1990 through 1995. The average length of stay is calculated by dividing the total number of patient days by the total number of episodes. Probabilistic estimates of the number of people served (with 95% confidence limits) are reported for each year.

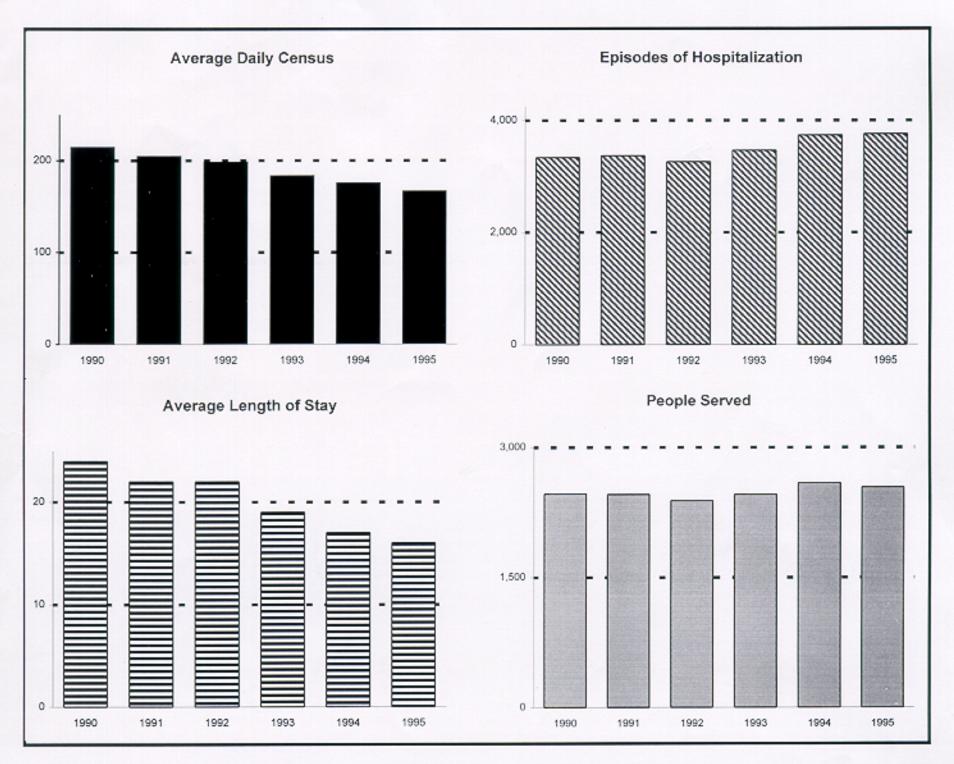
Results: The average daily census and average length of stay for Vermont adults receiving inpatient behavioral health care has decreased significantly during 1990 – 1995. The average daily declined by more than 20% during the six year time period (215 to 172 residents hospitalized per day). The average length of stay declined by one third from 24 days in 1990 to 16 days in 1995.

The number of episodes of hospitalization increased from 3,338 in 1990 to 3,761 in 1995 (an increase of 13%).

The number of people served each year remained relatively constant during 1990 – 1995.

Next Questions: Are there differences in utilization of inpatient behavioral health care among the geographical regions of Vermont? Has utilization of different types of facilities changed at different rates? Will utilization of inpatient behavioral health care services change with the introduction of Managed Care?

Inpatient Behavioral Health Care Provided to Vermont Adults 1990 - 1995



	1990	1991	1992	1993	1994	1995
Average Daily Census	215	205	199	184	176	167
Episodes	3,338	3,370	3,263	3,463	3,737	3,761
Average Length of Stay	24	22	22	19	17	16
People Served	2,464 ± 18	2,456 ± 18	2,384 <u>+</u> 17	2,457 ± 18	2,591 <u>+</u> 19	2,540 <u>+</u> 19

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, database extracts provided by the Brattleboro Retreat, and Vermont State Hospital Client Database maintained by the Vermont Department of Developmental and Mental Health Services. Information includes all inpatient behavioral health hospitalizations to Vermont residents in Vermont and New Hampshire general hospitals, the Brattleboro Retreat and the Vermont State Hospital.

Vermont adults include all residents age 18 and older.

The State of Vermont does not have a unique client identifiers across service providers. In order to derive unduplicated estimates of the number of people served, the Probabilistic Population Estimator has been used to provide both people estimates and 95% confidence limits.